

Type LT73 Series

Key Features

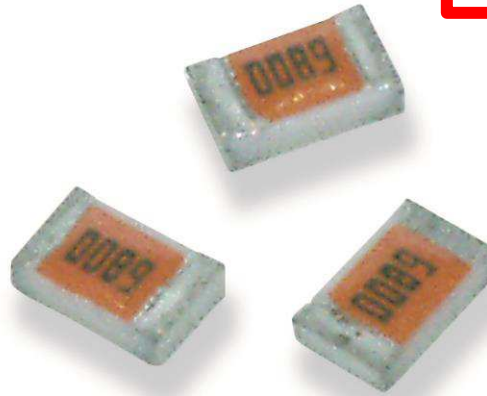
Stable Alumina
Substrate

Solvent
Resistant
Coating

Excellent
Linearity

Supplied on
Tape and Reel

Other TCR's
available to
order



**PRODUCT PLANNED
FOR EOL**

LTB 18/08/23

This thin film chip is manufactured by sputtering pure metals onto a high purity alumina base. This process ensures the element remains stable in performance over a long life. The LT73 is equally suited to temperature compensation or thermal protection when incorporated within the appropriate electronics. This range of sensors are finished in a tough epoxy seal and are available on tape for high speed auto placement.

Characteristics – Electrical

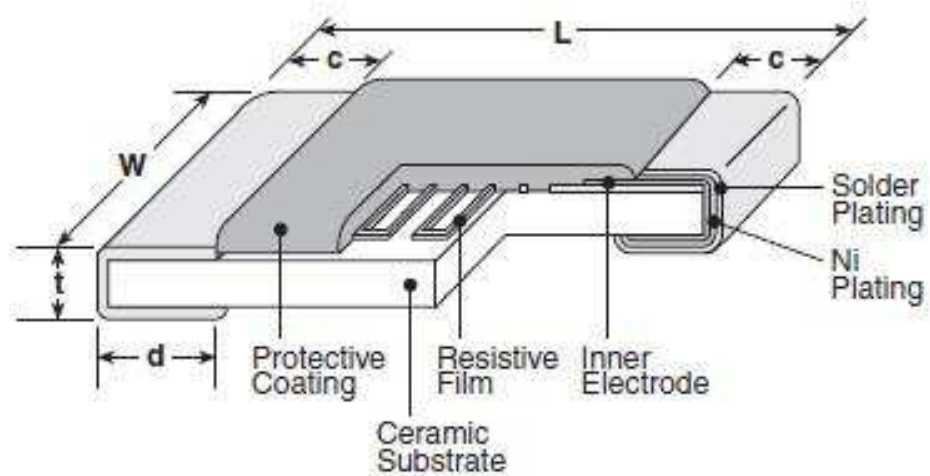
	0805 Size (2A)	1206 size (2B)
Resistance Range	510R - 3K0	510R - 6K2
Resistance Tolerance	±5%	
Rated Power at 70°C	0.1 Watt	0.125 Watt
Max. Working Voltage @ TA 70°C	50 volts	75 volts
Max. Overload Voltage @ TA 70°C	100 volts	150 volts
Operating Temperature Range	-40°C ~ +125°C	
TCR Measuring Temperature	+25°C ~ +75°C (See Graph)	
TCR Tolerance	±10%	
Insulation Resistance	More than 10 Meg	

Marking – Black four digit on bronze body color

Performance Characteristics

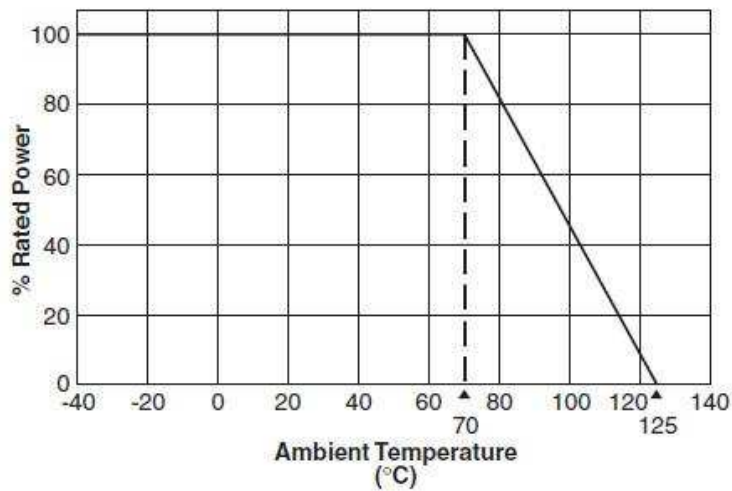
Parameter	Requirement $\Delta R \pm(\% + 0.05\Omega)$		Test Method
	Limit	Typical	
Resistance	Within specified tolerance		25°C
TCR	Within specified tolerance		+25°C/+75°C
Overload (Short time)	±1.0%	±0.23%	Rated voltage x 2.5 or maximum overload volume for 5 seconds, whichever is lower
Resistance to Solder Heat	±1.0%	±0.1%	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±1.0%	±0.1%	-40°C (30 minutes)/+125°C (30 minutes), 5 cycles
Moisture Resistance	±3.0%	±0.54%	40°C ± 2°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±3.0%	±0.62%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle

Construction and Dimensions

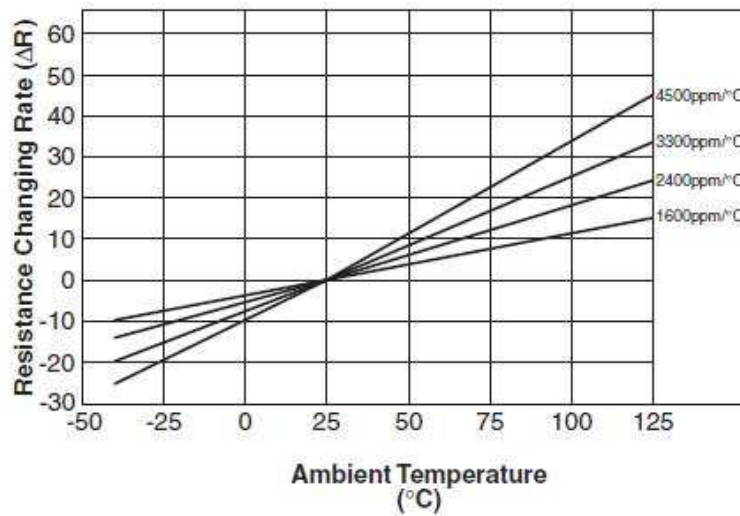


Type	Dimensions (mm)				
	L	W	c	d	t
2A (0805)	2.00±0.20	1.25±0.20	0.40±0.20	0.30 ^{+0.20} / _{-0.10}	0.50±0.10
2B (1206)	3.20±0.20	1.60±0.20	0.50±0.30	0.40 ^{+0.20} / _{-0.10}	0.60±0.10

Derating Curve



Temperature Characteristics

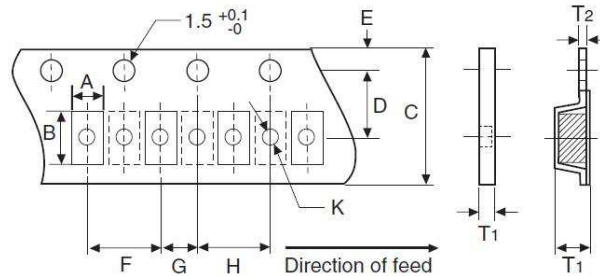


Approximate expression for Resistance-Temperature Characteristics

TCR ($\times 10^{-6}/K$)	C_0	C_1	C_2
3000	0.9288	0.0028	1.9983×10^{-6}
3300	0.9232	0.0030	2.9980×10^{-6}
3600	0.9175	0.0032	4.0000×10^{-6}
3900	0.9099	0.0035	4.0064×10^{-6}
4200	0.9026	0.0038	3.9964×10^{-6}
4500	0.8948	0.0041	4.0064×10^{-6}

Packaging

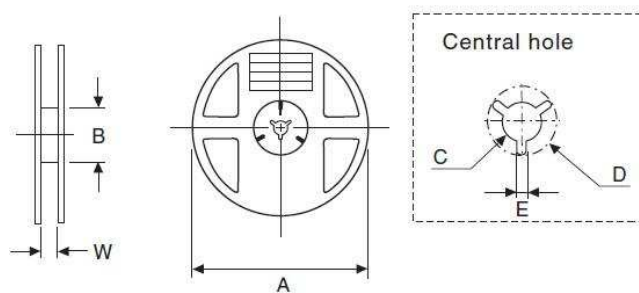
Carrier Tape



Tape	B	C	D	E	F	G	H
2A	2.4±0.1	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1
2B	3.5±0.1	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1

Tape	A	K	T ₁	T ₂
2A (TE)	1.60±0.15	1.2 Max.	0.75 ^{+0.2} ₋₀	0.25±0.05
2B (TD)	2.0±0.2	---	0.90±0.1	---

Reel



Reel	A	B	W	C	D	E
TE	178±2.0	60±2.0	10±1.2	13±0.5	21±0.8	2.0±0.5
TD	178±2.0	60±2.0	10±1.2	13±0.5	21±0.8	2.0±0.5

How To Order

LT73	3900	2A	1R0	J	TE
Common Part	T.C.R.	Size	Resistance Value	Tolerance	Packaging
LT73	3000ppm/°C 3900ppm/°C	2A 0805 2B 1206	0.1Ω - R10 1Ω - 1R0 1KΩ- 1K0	J - 5%	TE - 4000 RL (0805) TD - 5000 RL (1206)